Micromachined High-Temperature Sensors for Planet Exploration, Phase I

Completed Technology Project (2010 - 2010)

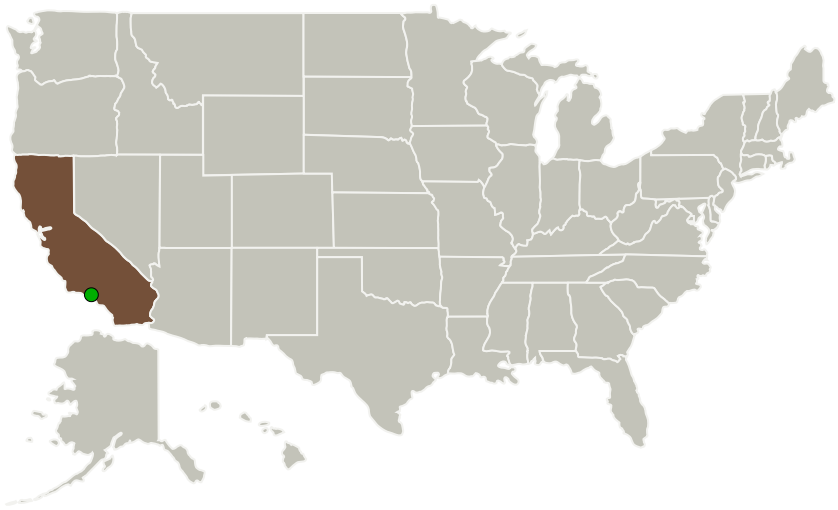
Project Introduction

In phase I of the SBIR program, LEEOAT Company will develop, simulate, fabricate and test high-temperature piezoelectric miniature sensors (up to 800

o

C), for physical and geophysical measurements of pressure, force, acceleration and vibration on the surface of Venus and other planets. LEEOAT Company efforts will be focused on achieving high figure-of-merit sensors, that can in the long term reliably operate on the surface of Venus. Additionally, we will innovate the technology for the readout and communication of the measured data at shielded relay stations with intermediate temperatures.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
LEEOAT Company	Lead Organization	Industry	Carlsbad, California
Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California

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Primary U.S. Work Locations
California

Project Transitions

January 2010: Project Start

July 2010: Closed out

Closeout Summary: Micromachined High-Temperature Sensors for Planet Exploration, Phase I Project Image

Closeout Documentation:

- Final Summary Chart Image*(https://techport.nasa.gov/file/139225)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

LEEOAT Company

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

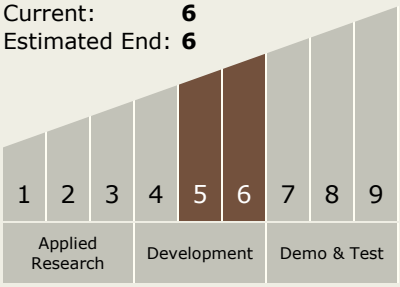
Carlos Torrez

Principal Investigator:

Eli Wiener-avnear

Technology Maturity (TRL)

Start: **5**
Current: **6**
Estimated End: **6**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.3 In-Situ Instruments and Sensors
    - TX08.3.6 Extreme Environments Related to Critical System Health Management

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System